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STAT **Pentagon, Comsat Hit
Impasse Over Design**By John P. MacKenzie
Staff Reporter

A bold attempt to pool military and civilian resources for cheaper and better communications in space has run into trouble over design and foreign policy.

Six months of negotiations have failed to produce an agreement by which the Pentagon and the private Communications Satellite Corp. hoped to share a \$200-million satellite system, reaping millions in budget savings and commercial profits.

Yesterday was the Government-established deadline to agree or else break off discussions. Negotiations continued past the deadline with both sides farther apart than ever.

At issue is whether the Comsat corporation can de-

sign a system of earth-orbiting satellites that can handle the most sensitive military-diplomatic traffic—and still sell the system to the foreign nations whose participation is vital to a worldwide space communications network.

Comsat is the congressionally chartered, Government-regulated firm that hopes to operate with foreign partners a global telephone, telegraph and television system by 1967. Budget-conscious Defense Secretary Robert S. McNamara is the presidentially designated manager of the National Communications System (NCS) which merges the Nation's security communications facilities.

The NCS wants to harness satellites to mobile ground stations that could be quickly installed in remote areas of

the world to deal with diplomatic and military emergencies. NCS requirements include instant availability of the System's frequencies.

Comsat has offered to design a satellite which would allow the NCS to use an exclusive range of frequencies for its traffic with adjacent frequencies in the radio spectrum carrying ordinary civilian messages.

By sharing neighboring frequencies, Comsat proposed to gain a customer with \$25 million worth of satellite communications traffic annually while saving the NCS one third of the cost of launching and operating a separate system.

But the shared economics depend heavily on a simple, lightweight satellite design. The NCS now wants Comsat to run its commercial traffic over much lower radio frequencies, preserving the upper range for national purposes, some of which are classified.

The frequencies change would require totally different designs in the satellite mechanisms that take signals from earth stations, amplify them and beam them to distant receiving antennas.

Comsat officials calculate that separate mechanisms—a military "black box" and a civilian "black box" inside the same orbiting sphere—would nearly double the satellite's weight and eliminate two-thirds of the potential economies in launching and operation.

Perhaps more importantly the Corporation, with some support in the State Department, thinks the military-tailored design might not find acceptance among many foreign partners. The global network has been billed by the United States as a promising peaceful application of outer space.

In discussions with European nations, Comsat has held out the tempting possibility that the U.S. Government might be a larger paying customer. But there's a vast difference, according to one official, between designing, say, an airplane that might accept military passengers and one that is "a bomber in front with passenger space in the rear."

Cross-currents from Capitol Hill have not clarified all the issues. The Senate Space Committee has pressed for the shared system while the House Military Operations Subcommittee is asking why the Pentagon has switched signals after six years of fruitless attempts to develop a separate space system.